Rejection under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 9-12, 17-18, 21-24 and 26-27 as allegedly being unclear. The Examiner asserts that the claim terms "$(CH_2)_n$-R^7, SO_2-R^8, etc." are not defined in claim 1, have insufficient antecedent basis and fail to further limit claim 1. The Examiner also asserts that the term "inclusive" does not provide one of skill in the art a reasonable appraisal of the scope of the invention.

Applicant respectfully notes that the Examiner's rejection is unclear. The Examiner has rejected the claims for use of the terms "$(CH_2)_n$-R^7, SO_2-R^8, etc." and "inclusive." Because of the ambiguity of the term "etc.," the basis for rejecting claims 9-12, 18, 21-24 and 26-27 is unclear. For example, Applicant is uncertain whether claim 11 is rejected for the use of the term "inclusive" or the use of the term "-$(CH_2)_q$-$C(O)$-$(CH_2)_s$-R^7." Nonetheless, Applicant has made a bona fide effort to address the rejections below.

The term "inclusive" clearly apprises one of skill in the art of the scope of the invention.

Applicant respectfully asserts that the term "inclusive" clearly apprises one of skill in the art of the scope of the invention. Claims 9-12, 21-22, and 25-26 recite "from 2 to 9, inclusive," "from 0 to 20, inclusive," and "from 1 to 20, inclusive," respectively. One of skill in the art would immediately understand the term "inclusive" to indicate the inclusion of the endpoints of the ranges (e.g., 2 and 9, 0 and 20, and 1 and 20, respectively). This interpretation is within the plain, ordinary meaning of the term "inclusive."

However, to expedite prosecution Applicant has deleted the term "inclusive" in claims 9-12, 21-22, and 25-26. In light of the amendment and comments, Applicant requests that the Examiner withdraw the rejection for use of the term "inclusive."

The terms "$(CH_2)_n$-R^7, SO_2-R^8, etc." recited in the rejected claims have sufficient antecedent basis and further limit claims from which they depend.

Applicant respectfully asserts that the terms "$(CH_2)_n$-R^7, SO_2-R^8, etc." recited in claims 9-12, 17-18, 21-24 and 26-27 have sufficient antecedent basis and further limit the claims from which they depend.

The term "R^2" in claims 1 and 15 is defined in claims 9 and 21, respectively, as "$(CH_2)_n$-R^7." Claims 1 and 15 define R^2 as a member of the group including "alkyl groups terminally substituted with reactive functional groups." The group $(CH_2)_n$-R^7 is an alkyl group terminally substituted with the reactive functional group R^7. The term "n" is defined as a number from 1 to 20. Therefore, claims 9 and 21 further limit R^2 to a C_1-C_{20} alkyl group terminally substituted with the reactive functional group R^7.

"R^2" in claim 15 is defined in claim 17 as "SO_2-R^8." Claim 15 defines R^2 as a member of the group including "reactive functional groups," which is further defined in claim 16 as a member of the group including "OR^3." The "R^3" group is further defined in claim 17 as "SO_2-R^8." Therefore, R^2 is further limited to a reactive functional group having the formula OSO_2-R^8 in claim 17.

"R^2" in claim 1 is defined in claim 11 as "-$(CH_2)_q$-$C(O)$-$(CH_2)_s$-R^7." Claim 1 defines R^2 as a member of the group including "internally substituted alkyl groups terminally substituted with a reactive functional group." The term "-$(CH_2)_q$-$C(O)$-$(CH_2)_s$-R^7" is an alkyl group internally substituted with an oxo and terminally substituted with the reactive functional group R^7. The terms "q" and "s" are defined as numbers from 1 to 20. Therefore, claim 11 further limits R^2 to a C_2-C_{40} alkyl group internally substituted with an oxo and terminally substituted with the reactive functional group R^7.

"R^2" in claim 15 is defined in claim 23 as a Markush group consisting of -COOH, -OH, -NH_2 and -SH. Claim 15 defines R^2 as a member of the group including "reactive functional groups." The groups -COOH, -OH, -NH_2 and -SH are reactive

functional groups. Applicant notes that "reactive functional groups" are not limited in claim 15. Therefore, the type of reactive functional groups of claim 15 are further limited to -COOH, -OH, -NH$_2$ and -SH in claim 23.

The term "R^7" in claim 21 is defined in claim 24 as a Markush group consisting of -COOH, -OH, -NH$_2$ and -SH. Claim 21 defines R^7 as "a reactive functional group." The groups -COOH, -OH, -NH$_2$ and -SH are reactive functional groups. Applicant notes that "reactive functional groups" are not limited in claim 21. Therefore, the type of reactive functional groups of claim 21 are further limited to -COOH, -OH, -NH$_2$ and -SH in claim 23.

In light of the discussion of the terms $(CH_2)_n$-R^7, SO_2-R^8, etc." and "inclusive" outlined above, Applicant requests the Examiner withdraw the rejection.

Subject matter has been impermissibly withdrawn from consideration

The Examiner has withdrawn from consideration the species of Formula I, Claim 1, wherein X is S and X is nitrogen (NH). Applicant respectfully asserts that the Examiner has impermissibly withdrawn this subject matter from consideration.

The Examiner issued a second Restriction Requirement in the Action dated January 29, 2002 dividing the pending claims into three Groups:

Group I. Claims 1-12 and 15-27, wherein X = O.

Group II. Claims 1-12 and 15-27, wherein X = S

Group III. Claims 1-12 and 15-27, wherein X is nitrogen (NH).

Applicant responded to the above Action on July 25, 2002, noting:

Although the Action [dated January 29, 2002] is referred to as a Restriction Requirement, the Action appears to be in the form of an Election of Species. The Examiner acknowledges that claim 1 is generic and states that upon election of a single elected species, a generic concept inclusive of the species will be identified by the Examiner.

From this statement, it is apparent that Applicant did not intend to elect a group from a restriction requirement. Rather, the Applicant intended to elect a *species* of a Markush group, in which X is oxygen.

The Examiner is respectfully reminded that where a claim contains a

Markush group:

> [T]he examiner may require a provisional election of a single species prior
> to examination on the merits . . . Following election, the Markush-type
> claim will be examined fully with respect to the elected species and
> *further to the extent necessary* to determine patentability . . . should no
> prior art be found that anticipates or renders obvious the elected species,
> *the search of the Markush-type claim will be extended*.

MPEP 803.02. Here, the Examiner has searched the prior art for the elected species,

where X is O, and has not found any reference that anticipates or renders obvious the

elected species. However, the Examiner has not extended the search of the Markush-type

claim to either of the two non-elected species as required by § 803.02. Instead, the

Examiner has withdrawn the subject matter of the non-elected species. Applicants

respectfully assert that the withdrawal of the non-elected species without extending the

search to the non-elected species is impermissible.

In light of the requirements of § 803.02 of the MPEP outlined above,

Applicants request that the Examiner extend the search to the non-elected species,

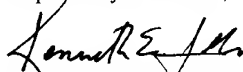wherein X is S and X is nitrogen (NH) of the Markush group.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this

Application are in condition for allowance. The issuance of a formal Notice of

Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite

prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

Kenneth E. Jenkins, Ph.D.
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

9. A compound according to claim 1, wherein R^2 has the structure:

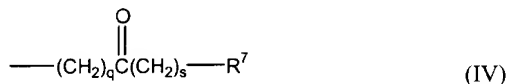$$-\!\!-\!\!(CH_2)_n-\!\!-R^7 \qquad\qquad\text{(III)}$$

wherein,

R^7 a reactive functional group; and

n is a number from 1 to 20[, inclusive].

10. The compound according to claim 9, wherein n is a number from 2 to 9[, inclusive].

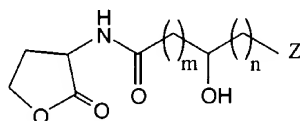**11.** A compound according to claim 1, wherein R^2 has the structure:

$$\overset{\displaystyle O}{\overset{\displaystyle \|}{-\!\!-\!\!(CH_2)_q C (CH_2)_s-\!\!-R^7}} \qquad\qquad\text{(IV)}$$
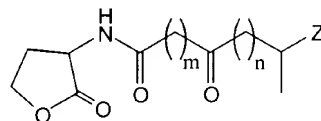
wherein,

R^7 is a reactive functional group; and

q and s are numbers independently selected from 1 to 20[, inclusive].

12. The compound according to claim 11, wherein s is a number from 2 to 9 [, inclusive].

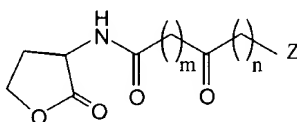**21.** A compound according to claim 15, wherein R^2 has the structure:

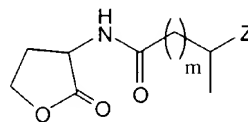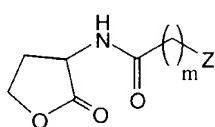$$-\!\!-\!\!(CH_2)_n-\!\!-R^7 \qquad\qquad\text{(III)}$$

wherein,
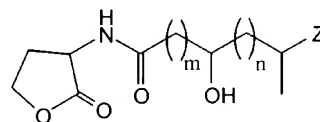
R^7 is a reactive functional group; and

n is a number from 1 to 20[, inclusive].

22. The compound according to claim 21, wherein n is a number from 2 to 9[, inclusive].

25. A compound having a structure that is a member selected from:

wherein,

m is a number selected from 1 to 20[, inclusive];

n is a number from 0 to 20[, inclusive]; and

Z is a reactive functional group.

26. The compound according to claim 25, wherein m and n are numbers independently selected from 2 to 9[, inclusive].

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